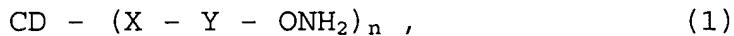


LIST OF CLAIMS

1. (Currently Amended) Aminooxy-cyclodextrin compounds of the formula 1:



wherein

CD is a mono- or polydeoxy α -, β - or γ -cyclodextrin, carrying in its 6-, 3- and/or 2-position the aminooxy function containing group $(X-Y-ONH_2)$, and ~~optionally carrying further substituents different from $(X-Y-ONH_2)$ in their 6-, 3- and/or 2-positions,~~ and wherein Y is a linker group between the aminooxy group and the mono- or polydeoxy-CD-group,

X is a functional group or an atom necessary to connect the linker Y and the deoxy CD group, or Y is a direct bond when X is a direct bond, and

n is greater than or equal to 1, but less than or equal to 18, 21 or 24 for α -, β - or γ -cyclodextrin, respectively, ~~as well as the aminooxy protected derivatives thereof.~~

2. (Previously Presented) The compound according to claim 1, wherein Y and X are both direct bonds.

3. Canceled

4. (Currently Amended) The compound according to claim 1, wherein Y is a linear or branched alkylene, alkenylene with one or more double bonds which may be either isolated or conjugated, alkynylene with one or more triple bonds which may be either isolated or conjugated, or arylene or arylalkylene ~~fragments where aryl may be substituted or not substituted~~, whereby the alkylene, alkenylene and alkynylene ~~fragments~~ may be linear or branched, and one or more of the chain members (methylene groups) may be replaced by -NH-, -O-, -S-, -S-S-, -C(O)NH-, -C(O)O-, -OP(O)(OH)O-, -S(O)-, -SO₂-, or -CHR-, where R is alkyl, aryl, -OR', -NH₂, -NHR', -NR'₂, -OH, -COOH, or -ONH₂ groups and where R' is alkyl, aryl, or acyl.

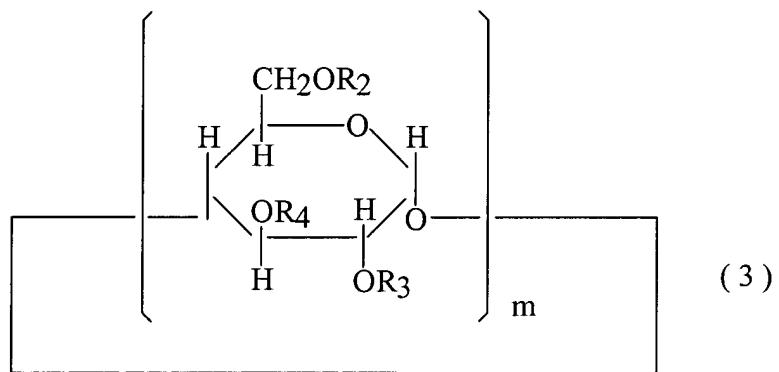
5. (Previously Presented) The compound according to claims 1 or 4, wherein X is selected from the group consisting of -O-, -S-, -NH-, -NR"-, -OCO-, -NH-O-, =NO-, -NHC(O)-, -OP(O)(OH)O-, and -R"C=NO-, where R" is linear or branched lower alkyl.

6. (Previously Presented) The compound according to claim 4, wherein Y is alkylene containing 2-12 C-atoms, wherein one or more of the chain members may be replaced by -NH-, -O-, -S-, -C(O)NH-, -C(O)O-, or CHR₁ wherein R₁ is methyl, ethyl or propyl and X is -O-, -S-, -NH-, -OC(O)-, or -NH-C(O)-.

7. (Currently Amended) The compound according to claim 1, wherein one or more of the hydroxyl groups of the aminoxy function containing group at 6-, 3-, and/or 2-position(s) are substituted with a group selected from the group consisting of $\text{H}_2\text{N}-$, $\text{HS}-$, $-\text{COOH}$, alkoxy-, aryloxy-, and acyloxy, and wherein said alkoxy-, aryloxy-, and acyloxy- can contain $\text{H}_2\text{N}-$, $\text{HS}-$, or $-\text{COOH}$ in their structure, side chain or aromatic ring.

8. (Currently Amended) A method for preparing the compound of claim 1 of formula 1, wherein X is an oxygen atom, comprising the steps of:

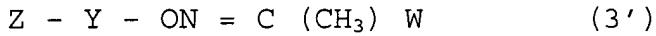
a) for the preparation of a compound of formula 1 of claim 1 wherein X is an oxygen atom, alkylating a cyclodextrin of formula (3) at one or more of the positions 6, 3, and/or 2 containing a hydroxyl group,



wherein R_2 , R_3 , and R_4 are hydrogen or substituents selected from the group consisting of alkyl, aryl and acyl, and wherein said

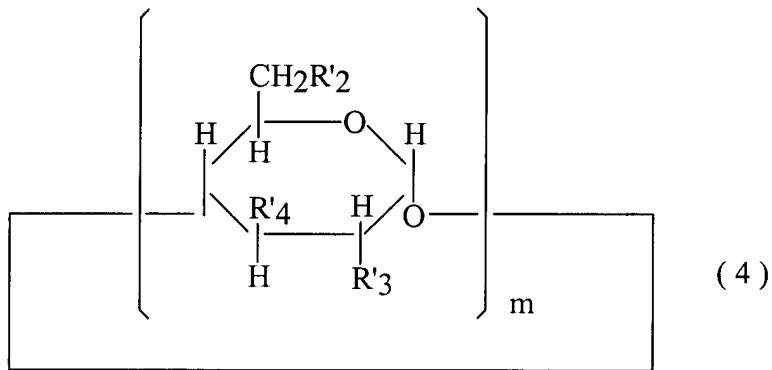
substituents substituents may have functional groups, if they exist, which are protected whenever necessary,

with a compound according to formula (3'):



wherein W is $-OC_2H_5$ or $-CH_3$, m is 6, 7 or 8, Y is a linker group between the aminoxy group and the mono- or polydeoxy-CD-group, and Z is a reactive group, and optionally protecting group(s) is/are removed, or

b) alkylating a cyclodextrin compound of formula (4)



wherein R'_2 , R'_3 , R'_4 are hydroxy or activated groups selected from the group consisting of tosyl, mesyl, halogen, ester and epoxy, or said substituent group being in a protected form if necessary, whereby the cyclodextrin compound contains at least one of said activated groups

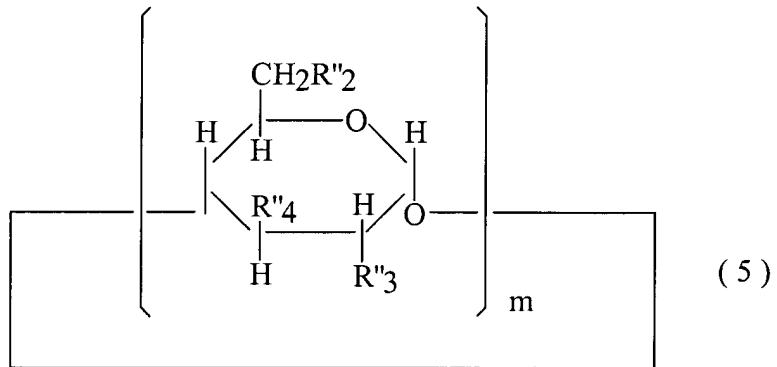
with the compound of formula (4')



wherein X is selected from the group consisting of $-O-$, $-S-$, $-NH-$, $-NR''-$, $-OCO-$, $-NH-O-$, $=NO-$, $-NHC(O)-$, $-OP(O)(OH)O-$, and $-R''C=NO-$,

where R'' is linear or branched lower alkyl, and Y is a linear or branched alkylene, alkenylene with one or more double bonds which may be either isolated or conjugated, alkynylene with one or more triple bonds which may be either isolated or conjugated, or arylene or arylalkylene ~~fragments where aryl may be substituted or not substituted~~, whereby the alkylene, alkenylene and alkynylene ~~fragments~~ may be linear or branched, and one or more of the chain members (methylene groups) may be replaced by $-NH-$, $-O-$, $-S-$, $-S-S-$, $-C(O)NH$, $-C(O)O-$, $-OP(O)(OH)O-$, $-S(O)-$, $-SO_2-$, or $-CHR-$, where R is alkyl, aryl, $-OR'$, $-NH_2$, $-NHR'$, $-NR'{}_2$, $-OH$, $-COOH$, or $-ONH_2$ groups and where R' is alkyl, aryl, or acyl, and W is $-OC_2H_5$ or $-CH_3$, and protecting group(s) is/are removed if necessary, or

(c) reacting a cyclodextrin compound of formula (5)



wherein at least one of the groups $R''{}_2$, $R''{}_3$, and $R''{}_4$ are thiol-, amino-, carboxy-, or alkoxy-, aryloxy- or acyloxy groups which contain at least one thiol-, amino-, or carboxy- group, ~~or their derivative~~, and the remaining ~~functional~~ groups are hydroxyl groups or groups selected from the group consisting of H_2N- , $HS-$, $-COOH$,

alkoxy-, aryloxy-, and acyloxy, and wherein said alkoxy-, aryloxy-, and acyloxy- can contain H₂N-, HS-, or -COOH ~~in their structure, side chain or aromatic ring~~, and exist, if necessary, in a protected form, with an appropriate aminoxy protected substituted hydroxylamine according to formula (3'), after which the protecting group(s) are removed, or

(d) reacting a cyclodextrin compound of formula (5), which contains one or more of keto or aldehyde groups, with bisaminoxy alkanes of formula (5')



wherein t is 2-12, and wherein one of the methylene groups can be substituted with oxygen or sulfur atom, or wherein a -NH- or -S-S- group, and a protecting group is removed if necessary.

9. - 11. (Canceled)

12. (Currently Amended) The aminoxy-cyclodextrin compounds of claim 1, wherein the aminoxy ~~protected compound group is in the form of~~ ethoxy-ethylidene ~~protected aminoxy~~ or acetone oxime derivatives thereof.

13. (Previously Presented) The compounds according to claim 4, where the alkylene, alkenylene, and alkynylene fragments contain 2 to 12 c-atoms in the chain.

14. (Previously Presented) The compounds of claim 7, where the alkoxy is a C₁-C₆ alkoxy, the aryloxy is phenoxy, benzyloxy or tolyloxy, and the acyloxy originates from C₁-C₆ carboxyl or benzoic acids.

15. (Canceled)

16. (Canceled)

17. (Currently Amended) The aminoxy-cyclodextrin compounds of the formula 1 as recited in claim 1, wherein Y is a linker group represented by a linear or branched alkylene, alkenylene with one or more double bonds which may be either isolated or conjugated, alkynylene with one or more triple bonds which may be either isolated or conjugated, or arylene or arylalkylene ~~fragments where aryl may be substituted or not substituted~~, whereby the alkylene, alkenylene and alkynylene ~~fragments~~ may be linear or branched, and one or more of the chain members (methylene groups) may be replaced by -NH-, -O-, -S-, -S-S-, -C(O)NH-, -C(O)O-, -OP(O)(OH)O-, -S(O)-, SO₂- ~~SO₂-~~, or -CHR-, where R is alkyl, aryl, -OR', -NH₂, -NHR', -NR'₂, -OH, -COOH, or -ONH₂ groups and where R' is alkyl, aryl, or acyl.

18. (Currently Amended) The aminoxy-cyclodextrin compounds of the formula 1 as recited in claim 17, wherein the amino protective group is ethoxy-ethylidene or acetone oxime derivatives thereof.

19. (Currently Amended) The aminoxy-cyclodextrin compounds of the formula 1 as recited in claim 18, wherein X is selected from the group consisting of -O-, -S-, -NH-, -NR"-, -OCO-, -NH-O-, =NO-, -NHC(O)-, ~~-OP(O)(OH)-~~ -OP(O)(OH)O-, and -R"C=NO-, where R" is linear or branched lower alkyl.